ABANDONED URANIUM MINES PROJECT ATLAS

APPENDIX A.2

COMMUNITY INFORMATION AND EDUCATION SUMMARY

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INTRODUCTION

When the U.S. Environmental Protection Agency (USEPA) Region 9 started work on the Navajo Abandoned Uranium Mines project, there was a lot to learn about how to involve the Navajo communities in the work that lay ahead. The work would be taking place in a setting unlike the typical urban, suburban or agricultural environment. It would be like working in another country-the remoteness of the land, a different language, suspicion toward government-plus the memories of all those who died after working in the mines and those still suffering. A simple, direct approach was adopted. It was vital that those living in the affected areas take an active continuing role as the community partners.

What follows are examples of the outreach strategy for the two-way sharing of information, educational efforts to increase understanding and awareness of the mines and their possible effects, and what was learned from the people along the way.

The purpose of the project was to determine if the old abandoned uranium mines on the Navajo Nation currently, or could in the future, pose a health or safety concern for human beings or the environment. First it was necessary to determine where the old mines were located, since the existing information was unreliable. This was done using helicopter surveys that measured radiation over suspected mining areas in order to locate the current sources of radiation. From this information, the investigation continued by looking at water sources used for human consumption and mine waste rock used in home construction, the two most serious of the possible pathways of exposure to people living nearby.

THE START-UP

In October 1994, USEPA and the Navajo Superfund Program (NSP--part of the Navajo Nation Environmental Protection Agency), collaborated on how best to introduce the project to the area that would first be surveyed by helicopter. It was NSP's suggestion to arrange a Blessing Way Ceremony and traditional lunch at a chapter house in the subject area, having the helicopter on hand so people could see it and its crew. Preparation for the event began the night before with a "sheep slaughter" at the home of a NSP staff member and continued the next day at the Beclabito Chapter House. After a presentation about the project to the community by a chapter delegate (translated into Navajo by a member of NSP), the ceremony to bless the project was performed by Medicine Man, Willie Weaver in front of the helicopter. The prayers were for the success of the project so the people could be protected and that the helicopter remain aloft so it could do its job. The message of his ceremony was to bring the work full circle to restore harmony to the land and its people. Following the ceremony, it was the helicopter that took center stage, especially for the children from the adjacent school who had been observing the proceedings. With what was to become the first of many instances in which the young would teach the old, each child came up to the helicopter to have a photo taken with a Polaroid camera. This was not done simply for the amusement of the children, but also because they would bring the photos home to their parents and thereby spread the word about the project. The feast of mutton stew and all the trimmings followed. The day concluded with a successful three-way partnership between USEPA, NSP, and the communities.

WORKING WITH THE CHAPTERS

From 1994 to 2000, USEPA brought the project to approximately 30 chapters (there are 110 chapters on the Navajo Nation) by means of one-to-one communication. The following chapters were visited during this time period: Bodaway Gap, Cameron, Chilchinbeto, Coalmine Mesa, Dennehotso, Kayenta, Oljato, Shonto, Tuba City, Beclabito, Cove, Red Valley, Sanostee, Sweetwater, Teec Nos Pos, Two Grey Hills, Black Mesa, Chinle, Lukachukai, Many Farms, Nazlini, Rough Rock, Tachee/Blue Gap, Tselani/Cottonwood, Dilkon, Indian Wells, Lower Greasewood, Teesto, and Whitecone. Whether discussing aerial surveying or sampling of water and home construction materials, the approach was the same: talk in person to Chapter Officials to gain their permission to do the work, their support for the project, as well as their full participation. This was when the ability to communicate effectively was crucial -- to communicate with those personally affected by the legacy of the abandoned uranium mines.

The procedures were very simple. The USEPA Community Involvement Coordinator (CIC) set up appointments in advance by phone with chapter representatives to discuss whatever part of the project was intended for their area. The face-to-face meetings usually consisted of the CIC, the USEPA remedial project manager (RPM), or the U.S. Army Corps of Engineers (USACE) project manager and whatever Chapter Officials were available. One of the chapter representatives would translate what was said into Navajo as needed. Often the presentation was a part of the regularly scheduled chapter's executive planning meeting, as that was when many of the Chapter Officials would be present. Although attending a few general chapter meetings, it was preferable to initially talk about the project in a smaller, more relaxed forum. The communication objectives were to be as open, respectful, and non-threatening as possible and to be very conscious of the importance of listening.

OUTREACH MATERIALS

Fancy or detailed outreach materials were neither needed nor desired for this project. With the Navajo culture based in oral tradition, the written word was far less useful as a form of communication, especially when attempting to convey scientific information. Therefore, the simplest flyers and photographs did the job of providing something tangible that Chapter Officials could give out or refer to. Flyers and photos were posted in chapter houses and trading posts. Copies were delivered in person to police stations so they would know what the helicopter was doing. Furthermore, since many people cannot read and some of the elders speak only Navajo, non-written communication was, as stated earlier, critical. The outreach expanded to other media in Spring 1998. At that time, USEPA and NSP held an on-air interview with KTNN, the popular radio station of the Navajo Nation. The information on the project was presented in both English and Navajo. As the project continued, maps were developed from the aerial surveys. These maps were provided to Chapter Officials and discussed with them. Another set of maps with water sampling results and risk analysis was presented to chapters after the field team demobilized on January 31, 2000. These were designed specifically to simplify risk information through color coding so that the higher risk water sources would be easy to recognize.

HOW THE OUTREACH WAS RECEIVED

There were wide differences between chapters in how much they knew about the mining and their initial level of interest in the project. Once they knew that the project team was willing to work with them, on their schedule, and with their interests and concerns in mind, their commitment grew. The common theme was that the investigation was wanted and that the staff was welcome in each community. The team was always treated graciously and with appreciation for work being done. The more communities felt they were an important component of the project, the more engaged they became.

CONTINUING OUTREACH DURING FIELD WORK

Everyone connected to this project had to be sensitive to good community involvement techniques. This was especially true of the field team leader from the USACE whose responsibility was to continue establishing good rapport with the chapters in order to be able to collect the best possible data. The USEPA CIC and the USACE field manager made many trips to chapters together to discuss the results of the aerial surveys and plan for water sampling and home construction surveying. The field manager was specifically chosen because of his proven ability to not only do an impeccable job in the field but also because of his communication skills and sense of humor (a point that should not to be underestimated in this locale). He knew how to work with people so that they would feel part of an important effort. Prior to the fieldwork, outreach materials were distributed - just a simple flyer announcing the purpose of the work to be done and who to contact for more information. A critical part of the field sampling outreach effort was to enlist the assistance of Chapter Officials in identifying water sources used for human consumption. They were asked to recommend any homes to survey for possible radiation from construction materials (home surveying was provided at their request). Circumstances in each chapter varied widely, some had a full-time secretary and coordinator, while other chapters had no staff and no phone service. The communication arrangements were tailored to each chapter, even if that meant driving many hours to the chapter, simply to set up an appointment. After the initial meeting one of the Chapter Officials, typically the grazing member went with the field manager to locate the water sources by indicating the road to take or other directions, or by going with the field manager. This involved many hours, often over many days to accomplish.

THE ROLE OF EDUCATION

The teachers and students at the local schools were eager to get information on uranium, the mines, and the environment. At Monument Valley High School, the USEPA project manager and CIC gave a presentation to the entire student body on a variety of environmental issues, bringing numerous books and handouts from the Region 9 office in San Francisco. Similar materials were taken to the Cameron Chapter House along with the helicopter so people from the area could get a hands-on look at the project and learn more about USEPA. On the more technical side, the USACE field manager and chemist made several visits to science classes to teach the kids about the project and how sampling is performed. The schools visited during various classroom sessions included Monument Valley High School, Red Mesa High School, and Tse Bit Ai Middle School in Shiprock. The students were eager to learn about the work being done on the mines and the people doing the work. The students at Tsi Bit Ai Middle School made an electronic "thank you" for the field manager to show their appreciation for his taking the time to talk to them. In addition, USEPA received a letter from the students saying thank you for the school visit. It was signed by each of the students.

GAMMA GOAT BOOK

USEPA was fortunate to be able to create a coloring book for school children to teach them about uranium mines and radiation. Through funding of a National Network for Environmental Management Studies (sponsored by USEPA's Office of Environmental Education), a fellowship was awarded to a graduate student from the University of Michigan who could provide the necessary time and expertise toward developing a learning tool for children. Having been involved previously in educational work with Native American children and having spent time on the Navajo Nation, the student worked exclusively on this book during the Summer of 1998. Based on a coloring book that had been developed on the hanta virus, a new book, Gamma Goat...The Dangers of Uranium, was produced after much input and feedback from people on the reservation who knew what images and terminology would be most effective. With drawings provided by the student's brother, Gamma Goat has proven to be enormously popular with students and teachers. Distribution of the coloring book is continuing upon request.

URANIUM EDUCATION PROGRAM

USEPA developed a productive relationship with the Uranium Education Program (UEP) at Dine College in Shiprock. An organization, whose goal is to promote better understanding of uranium, radiation, and health through education, UEP plays an invaluable role on the Navajo Nation. UEP has helped explain USEPA's project and the resulting data. In the various areas of abandoned uranium mines UEP has conducted public information meetings on the basics of uranium and radiation exposure as well as the hazards associated with the old mines. They are currently in the process of translating into Navajo three of the Public Health Statements from the Agency for Toxic Substances and Disease Registry (ATSDR) that contain information on uranium, arsenic and lead.

DECEMBER 2000 - STATUS OF THE COMMUNITY INFORMATION AND EDUCATION

The ability for USEPA to fully communicate sampling results and what they mean, as well as work with the communities to find solutions to problems, was halted in January 2000 at the written request of the Navajo Nation EPA. As a result of this cessation, a fundamental part of USEPA's communications strategy-following through on the commitment to the community partners-had not been accomplished as of December 2000. The incomplete work included going back to each chapter to discuss in detail the results of the sampling, health risks involved with the water sources, and possible solutions. This work also included the offer to assist in sampling additional local water sources used for human consumption if the communities requested. This was expected after they reviewed the results. Although the water data summary tables had been provided to the chapters, these tables were technical in nature and warranted one-to-one communication on what they meant.

Collaboration and follow-through, especially with the community partners, were essential parts of the success of the field operations and data collection. Therefore, leadership by all the various agencies involved is necessary in reestablishing the dialogue with the chapters and, ultimately, working out options for reducing radiation and other exposures. It is the timeliness and the quality of the communication with those directly affected that will lead to a successful conclusion.